

How to optimise training and prevent injury



UNTAMED
EDUCATION

1.3.5 Physical training

PARQ

Injury

Drugs

Concussion

Fracture

Blood Doping

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R.I.C.E.

Over Use

Anabolic Steroids

Soft Tissue

Abrasion

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1. PAR-Q

- ▶ It is important to assess your readiness to perform before becoming active in case you have the following conditions:

- ▶ _____ problems.
- ▶ Chest pains.
- ▶ _____ or feeling faint.
- ▶ High blood _____.
- ▶ Bone and joint problems.



- ▶ The questionnaire asks questions to uncover any of these conditions.

2. Preventing Injury

- ▶ _____ up and _____ down properly.
- ▶ Use the correct _____.
- ▶ Know and follow the rules and _____.
- ▶ Wear appropriate protective clothing.
- ▶ Check equipment for _____.
- ▶ Check the facilities for any harmful objects and _____.



3. R.I.C.E

- ▶ There is one form of treatment that is used for a number of minor injuries and you can remember it using the acronym R.I.C.E.
- ▶ Rest - sit down or lie down and do not move.
- ▶ Ice - cool the injured area by applying ice.
- ▶ Compression - use a bandage to stop the swelling.
- ▶ Elevation - raise the joint higher than the heart to reduce the swelling.

4. Concussion

A person will display a number of _____ if they are concussed.

- ▶ Loss of _____.
- ▶ Relaxed _____.
- ▶ Weak irregular _____.
- ▶ Slow shallow _____.
- ▶ Dilated _____.
- ▶ Bleeding from the ears.



Treatment

If a performer takes a blow to the head it is important to get **help** immediately. Then place them in the _____ **position** making sure their airways are clear.

5. Fractures

- ▶ _____ or _____ **fracture** is where the broken bone comes through the skin. There is then a risk of infection entering the damaged skin.
- ▶ _____ or _____ **fracture** is a break of the bone without any breaking of the skin.
- ▶ _____ **fracture** is caused by pressure and impact so the bone bends but only partially breaks.
- ▶ _____ **fractures** are hairline cracks in the bone caused by constant pressure such as running. When muscles fatigue they are unable to absorb the shock and the resulting pressure causes small cracks to appear in the bone.



Treatment

For all types of fractures you should immediately stop and seek medical attention.

6. Dislocation

A person will display a number of symptoms if their bones become dislocated at the joint.

- ▶ The joint looks deformed.
- ▶ _____
- ▶ Bruising.
- ▶ _____
- ▶ Pain.
- ▶ Lack of _____.

Treatment

For a dislocation you should immediately stop and seek medical attention.



7. Soft Tissue Injuries

Soft tissue injuries involve injuries to the muscles, ligaments and tendons.

- a. **Strains**
- b. **Cuts**
- c. **Abrasions**
- d. **Sprains**
- e. **Tennis elbow**
- f. **Golfer's elbow**

a. Strains

Strains - caused by a tear in the muscle tissue, resulting in pain, swelling and bruising.

- ▶ Strains should be treated with _____
- ▶ **Rest** - sit down or lie down and do not move.
- ▶ **Ice** - cool the injured area by applying ice.



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- ▶ **Compression** - use a bandage to stop the swelling.
- ▶ **Elevation** - raise the joint higher than the heart to reduce the swelling.

b. Cuts

Cuts - caused by an impact **breaking the** _____.

- ▶ Requires immediate attention to **reduce the loss of blood**.
- ▶ They should be _____ with an antiseptic first.
- ▶ Dress them with a **plaster** or **bandage** or both so they **don't get** _____.



c. Abrasions

Grazes or abrasions - caused by _____ against a rough surface

- ▶ Need to be **cleaned thoroughly** as there may be grit or dirt in the wound.
- ▶ The graze should then be _____ to prevent further infection.



d. Sprain

Sprains - caused by **stretched or torn** _____ from a sudden twisting movement.

- ▶ Sprains should be treated with **R.I.C.E.**
 - ▶ **Rest** - sit down or lie down and do not move.
 - ▶ **Ice** - cool the injured area by applying ice.
 - ▶ **Compression** - use a bandage to stop the swelling.
 - ▶ **Elevation** - raise the joint higher than the heart to reduce the swelling.



e. Tennis elbow

Tennis elbow - caused by _____ of the tendons and muscles surrounding the elbow.

- ▶ Tennis elbow should be treated with _____ and if symptoms persist speak to a

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doctor.

f. Golfer's elbow

Golfer's elbow - caused by **overuse** of the tendons and muscles surrounding the elbow

- ▶ Golfer's elbow should be treated with **rest** and if symptoms persist speak to a doctor.

8. Causes of Injury

- ▶ _____ with another person.
- ▶ Sudden or **twisting** movements.
- ▶ Hot, cold, wet or windy _____.
- ▶ Wearing **inappropriate clothing**.
- ▶ Not following _____ or the **rules**.
- ▶ **Not** warming up and cooling down.
- ▶ _____ with the ground or another person.



9. Performance Enhancing Drugs (PEDs)

Drugs are:

"Any chemical introduced to the body which affects how the body works."

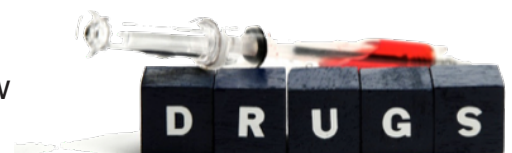
Doping is:

"To improve performance by taking drugs."

10. Reasons for taking them

Sports performers may take performance enhancing drugs for a number of reasons. Here are some:

- ▶ _____ help to build muscle quickly.
- ▶ _____ help to kill pain and allow the performer to keep going.



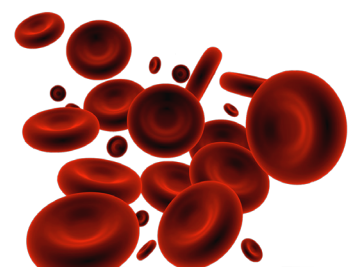
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- ▶ _____ make the performer more alert.
- ▶ _____ **drugs** calm performers before an event.

Type of Drug	Effect on Performance	Risks	Sports Used
Stimulants	Reduce tiredness.	Impotence, high blood pressure, heart failure, paranoia and insomnia.	Endurance events such as swimming and cycling.
Narcotic-analgesics	Painkillers mask the pain of injury.	Injuries become more severe, nausea, drowsiness, dry mouth and constipation	Used in all sports where injuries are sustained.
Diuretics	Increase the amount of water excreted. Flush other drugs out of the system.	Muscle weakness, and dehydration. Loss of sodium and potassium salts.	Sports that have weight categories such as boxing and horse racing.
Anxiety reducing drugs - Beta Blockers	Slow down and regulate the heart and reduce <u>hand shake</u> .	Diarrhoea, slow heart rate and impotence.	Shooting and archery.
Peptide hormones & analogues (EPO & GH)	They mimic the effect of naturally occurring hormones. Increase muscle strength and growth.	Allergic reactions, high blood pressure, abnormal growth in hands, feet and face.	<u>Weight lifting</u> to increase muscle mass.
Anabolic Steroids	Quick increase in strength. Able to train for longer.	Heart disease, high blood pressure, kidney and liver disease, infertility and aggression.	Strength and power related sports such as weightlifting and sprinting.

11. Types of drugs

The following drugs are _____ by the **International Olympic Committee**:



12. Blood doping

The method:

- ▶ **Blood** is _____ from the athlete a few weeks before competition.
- ▶ The **red blood cells** are _____ and _____.

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- ▶ **Just before** the **event** the red blood cells are **thawed** and _____ **back** into the athlete.
- ▶ The **higher** the _____ of **red blood cells** the **more** _____ can be delivered to the working muscles.
- ▶ Long distance athletes such as _____ and _____ runners may use this method.



The **dangers**:

- ▶ Injections could result in **infections** and **blood** _____.
- ▶ **HIV** and **AIDS**.
- ▶ Cheating can result in being _____.